

## **COLUMBIA RIVER REGIONAL FORUM**

### **TECHNICAL MANAGEMENT TEAM**

November 5, 2008 Meeting

#### **FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS**

Facilitator: Robin Gumpert

Notes: Erin Halton

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the “record” of the meeting, only a reminder for TMT members.

#### **Review of Minutes/Agenda**

The October 1<sup>st</sup>, 8<sup>th</sup>, and 22<sup>nd</sup> facilitator notes and official meeting minutes had been posted, and with no further comments, were considered final.

#### **The Dalles Spillwall Update/Chum Operations Options**

As follow up to the joint technical memo submitted by the Salmon Managers at the 10/22 TMT meeting, Jim Adams, COE, reported on the Action Agencies' draft plan for operations during chum spawning season while The Dalles' spillway construction is underway. The draft was sent to TMT members via email and was also posted as a link to the TMT agenda. Adams requested comments and feedback from the salmon managers.

Adams reviewed many of the specifics of the draft plan, including conditions needed to meet draft requirements per the spillwall construction, factors the Action Agencies considered as they drafted the plan, and potential modifications to accommodate this year's chum operations. In summary, he shared that:

- This plan provides slightly more operating flexibility than had been discussed at the October 22<sup>nd</sup> TMT meeting (75.5 minimum at The Dalles and 76.5 maximum at Bonneville forebay – the Action Agencies planned to add a new paragraph to the document that will speak to added operating flexibility at The Dalles project.).
- A new gauge installed near The Dalles' spillbay 23 is expected to help with real time surface elevation monitoring throughout the season.
- There may be more flexibility at John Day, and item 8(i) specifically addresses the COE's need to request a deviation to operate John Day pool to 266 feet for short durations.
- The spillwall contractor has modified operations to support more flexibility with chum operations and will continue to look for additional ways to provide more flexibility.
- The action agencies would like specific guidance from the salmon managers on real time management (timing, patterns) of excess water that might enter the system.
- The Dalles Spillwall Construction Project Manager Lance Helwig added that the COE is already considering the adjustments and options available for the 2009-10 construction timeframe.

The Salmon Managers expressed appreciation for the Action Agencies' response to their request for information about parameters and options for this year. They said they would review and provide feedback on the document as soon as possible.

**Action/Next Steps:**

- The Salmon Managers planned to review and discuss the document during their next FPAC meeting (either 11/10 or 11/12). Paul Wagner, FPAC Chairman, will email comments and edits to the Action Agencies following the meeting.
- The action agencies proposed that this draft document be incorporated into this year's Water Management Plan, and TMT agreed it should be included under 'Special Operations'.
- TMT will discuss Chum Operations at the 11/19 TMT meeting; if the need arises, there could be a conference call between now and then.

**Vernita Bar**

Russell Langshaw, Grant County PUD, reported that the official initiation of spawning was 10/29 and referred TMT to a document posted as a link to the agenda that summarized the data from the 11/2 spawning survey. He reported 52 redds in the 36-50 kcfs range and 6 redds in the 50-55 kcfs range. He added the few redds are expected to be above the 50-55 kcfs range due to fairly low flows and added that there will be ongoing feasibility studies through mid December, to explore and evaluate methods for eggs per redd counts.

**Action/Next Steps:** Langshaw said that spawning operations will continue (reverse load, 50-70 kcfs daytime) between now and the next ground count on 11/23, when the critical elevation will be determined and "normal operations" will resume. This item will be on the agenda for the 12/3 TMT meeting.

**Burbot SOR #2008-FWS-3**

Jason Flory, USFWS, referred TMT to an SOR posted as a link to the TMT website regarding temperature operations of Libby Dam for Kootenai River burbot. Greg Hoffman, COE, noted that this was a well-coordinated request and that the requested operations were already underway at the project. TMT had no further comments on this operation.

**Albeni Falls Operations Update**

Lynn Melder, COE, reported that the current elevation at Albeni Falls was 2051.48', that the project was expected to stay within a .5' operating range for the next few weeks and that the COE would likely begin passing inflows this coming weekend. Russ Kiefer, ID, expressed thanks to the Action Agencies for meeting the operational request and offered to provide historical information regarding criteria for determining the "end of spawning" at the next TMT meeting. Generally, it has been when no kokanee are observed at any of the three observation sites for a week.

**Action/Next Steps:** Russ Kiefer, Idaho, will provide data as to specific criteria used in previous years and what the timing has historically been. TMT will discuss the feedback and “post-spawning” operations at the 11/19 meeting.

### **2009 Draft Water Management Plan**

Dan Feil, COE, reminded TMT that comments are due this Friday, 11/7. Several TMT members said they planned to review and submit comments in writing.

**Action/Next Steps:** TMT will review an edited version of the plan at the 11/19 TMT meeting.

### **Operations Review**

**Reservoirs:** Libby was at elevation 2440.9', with inflows in the range of 4-5 kcfs and outflows of 4.5 kcfs. Albeni Falls was at 2051.48', with inflows 13.5 kcfs and outflows of 17 kcfs. Seven day average inflows were 17 kcfs at Lower Granite, 80-90 kcfs at McNary and 90-100 kcfs at Bonneville. Grand Coulee was at elevation 1288.8' and Hungry Horse was at elevation 3528.4', with outflows of 2.5 kcfs.

### **Other:**

- The Lower Monumental maintenance operation (10/25-11/11) continues with a speed/no load and spill operation. TDG has been as high as 113.5%. While this is above the 110% State TDG criteria, it is still below the 115% that was discussed at the last TMT meeting as an estimated maximum.
- To minimize the risk of spill at The Dalles, the project has been placed at the bottom of the spill priority list.
- On 11/3, Hungry Horse experienced an outage and the project had no generation for about two hours. A hollow jet valve was used for discharges and during that time, TDG levels rose to as high as 109.91%, (but returned to the 98-99% range soon after). Hungry Horse discharges and Columbia Falls flows dropped below minimums but returned soon after. During the meeting, Scott Bettin, BPA, reported that coordination efforts were underway regarding a planned outage to investigate the cause of the outage, which will be coordinated ahead of time, and the action agencies will report back to TMT if there are any TDG issues.

**Fish:** Paul Wagner, NOAA, reported that juvenile passage was at the end of its season numbers. Counts were in the couple hundred per day range at Little Goose. Video monitoring at mainstem projects ended on 10/31, but PIT tag monitoring continues; video monitoring is occurring at Snake River projects. Adult passage numbers were also decreasing; Wagner noted that higher peak counts for Fall Chinook may be due to cooler than average water temperatures. Steelhead counts were tracking close to ten year averages.

**Power System:** Nothing to report at this time.

**Water Quality:** Nothing to report at this time.

**Next face-to-face Meeting: 11/19 \*\*Please note that the meeting will be held from 1-4 p.m. at the COE**

Agenda items include:

- Albeni Falls – Historical Data / Post-spawning Operations
- Chum Operations
- WMP – Edits Review
- Operations Review

**Columbia River Regional Forum  
Technical Management Team Meeting  
Nov. 5, 2008**

**1. Introduction**

Today's TMT meeting was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (DS Consulting) with representatives of USFWS, NOAA, BPA, BOR, Idaho, Washington, CRITFC, FPC and others participating. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

**2. Review of Meeting Minutes for Oct. 1, 8 and 22**

There were no comments on these today, so they were deemed final.

**3. The Dalles Spill Wall Update and Discussion of Chum Operations**

Jim Adams presented the COE's plan for managing flows to meet the needs of both chum spawning at Bonneville Dam and construction activities for the spill wall at The Dalles. Recently the COE received a joint technical staff memo (JTSM) from the Salmon Managers, signed by CRITFC, IDFWG, ODFW, WDFW, NOAA and USFWS, that expressed concerns about lower Columbia River management and asked the COE to provide its plans for accommodating both operations. The plan presented today is the COE's response to that request.

Prior to today's meeting, the COE emailed TMT members the draft plan, linked to today's agenda. The COE is looking for ways to provide adequate spawning conditions for chum throughout The Dalles spill wall construction season (October through March, 2008-09 and 2009-10). Already the contractor has altered his operation to allow for construction in shallower water than originally planned. As a result, the required elevation in The Dalles tailwater has changed to 75.5 feet which will allow the Bonneville forebay to drop to a minimum elevation of approximately 74.5 feet instead of 75 feet, depending on outflows at The Dalles. Previously the COE had committed to 75.0-76.5 feet as a hard constraint for the Bonneville forebay. The ½-foot change means an increased operating range from 1.5 feet to 2 feet to use for chum spawning.

Paragraph 8(d) of the COE's plan anticipates that, for the October 2008-March 2009 construction phase, Bonneville forebay elevations will go no higher than 76.5 feet as a result of tailwater elevation restrictions at The Dalles (except for 18 instances per year when the elevation may exceed 76.5 feet). For the October 2009-March 2010 phase, this could change because the COE is considering structural alternatives, such as making the precast units lighter so they can be moved with smaller equipment than originally planned.

The COE's plan spells out the proposed chum operations beginning Friday, Nov. 7, 2008. The Action Agencies will manage outflows to keep Bonneville tailwater elevations within 11.3-11.7 feet to the greatest extent possible. If flows are too high, the Bonneville pool will be used up to elevation 76.5 feet to store the excess water. Beyond that, BPA will need guidance to give its teletype operators on what to do with excess water during the day, Tony Norris said.

At TMT's direction, the COE will consider options including pulses or a higher chum protection elevation if necessary. There will be ad hoc TMT meetings throughout spawning season as needed so the Action Agencies and the Salmon Managers can work together on chum issues.

Adams pointed out a change in the plan that isn't reflected in today's draft. The Fish Passage Plan calls for a minimum tailwater elevation of 158 feet at John Day in order to get full use of fish passage facilities. In order to maintain that elevation, normally the COE would operate The Dalles forebay at no lower than 157 feet elevation. It might be possible to go down to 155 feet at The Dalles, although at that point fish ladders might not be fully functional. Adding an extra 2 feet of flexibility at The Dalles would require FPOM coordination. Language to this effect will be added to the plan between paragraphs 8(g) and (h).

John Day operation is complex because the full pool elevation is 268 feet, but the upper 3 feet of storage is reserved for flood control, making the normal upper limit 265 feet. Tapping into any of that extra 3 feet would require a formal deviation request – a lengthy process – which might result in only an extra foot of storage. If the deviation request is approved, as described in paragraph 8(i), it would be a short-term solution dependent on river conditions. At BPA's suggestion the COE is considering making a deviation request with a right of refusal so this option is available if needed. After Nov. 9, the John Day pool elevation can go as low as 261 feet because irrigators won't need water. The rock-bottom elevation at John Day for navigation purposes is unknown, which further complicates the picture. The COE estimates a 4-foot elevation range from 261-265 feet at John Day that could be used for the chum operation. In addition, the COE can bring the Bonneville forebay elevation up to 77 feet 18 times a year as needed for high flows, per the COE's Water Control Manual.

USFWS, NOAA and Idaho representatives agreed this plan was what the Salmon Managers had in mind when they made their request. Paul Wagner (NOAA) will take the lead in presenting their consolidated comments to the COE after the next FPOM meeting. The chum flow plan will then be incorporated into the Water Management Plan for operating the system this year.

Raising the chum operation to a higher tailwater appears to be an easier path at this time rather than trying to pulse water out during the day, Wagner

said. BPA will look at how that might work on a real-time basis, Norris replied. TMT conference calls to discuss Bonneville operations will be scheduled as needed before the next regular TMT meeting on Nov. 19.

#### ***4. Priest Rapids Update***

Russell Langshaw (Grant Co. PUD) gave the first report on protection flows at Priest Rapids Dam for the 2008 chinook spawning season. On Nov. 2, a total of 58 redds were counted on Vernita Bar, 52 of those in zone 3 below the 50 kcfs elevation and 6 above the 50 kcfs elevation. Initiation of spawning was declared on Oct. 29 in both areas. The next redd count will be on Nov. 23 to determine the critical spawning elevation. Meanwhile, Grant Co. PUD is reverse load factoring until the critical elevation is met.

On the weekend of Nov. 23, Grant Co. PUD will begin trying different methods, including excavation and hydraulic pumping, to count the number of eggs per redd. The purpose of this study is to challenge an assumption that each redd contains the full number of eggs to be expected from each female. Low flows on the order of 40 kcfs can be expected for 10 hours some days through mid December while the study is in progress. Langshaw will call in next month to update TMT on this operation.

#### ***5. Burbot SOR 2008-FWS3***

Jason Flory (USFWS) presented this SOR, which outlines temperature operations at Libby to provide cooler water in the Kootenai River for burbot spawning. This year's request, submitted to the COE last week and linked to today's agenda, is focused mainly on temperature control through use of selective withdrawal from Libby reservoir. Temperature manipulations began 3 weeks ago. Since 2003 the COE has used this standard operation, which has been closely coordinated with Montana, to manage the temperature of flows for burbot, Greg Hoffman (COE) added. There were no questions from TMT members regarding this operation.

#### ***6. Albeni Falls Operations Update***

Lynne Melder (COE Seattle) led TMT's discussion of the drawdown at Albeni Falls. Current elevation is 2,051.48 feet at the Hope gage, within the ½ foot desired operating range through the end of spawning. The project will pass inflows this weekend to maintain elevation 2051-2051.5 feet. Russ Kiefer (Idaho) proposed that the end of kokanee spawning be declared when there has been no spawning activity observed in any of three identified spawning sites for a week. Dan Feil (COE) expressed interest in seeing historical data regarding the end of kokanee spawning when TMT revisits this issue at its Nov. 19 meeting.

## **7. Water Management Plan**

Dan Feil requested comments on the draft Water Management Plan by Friday, Nov. 7. Washington, CRITFC, Idaho, and USFWS plan to comment.

## **8. Operations Review**

### **a. Reservoirs.**

Libby is at elevation 2,440.9 feet, with inflows around 4-5 kcfs and outflows of 5.0 kcfs. The current plan is to continue these outflows through mid-November, then start ramping up as needed.

Albeni Falls is at elevation 2,051.48 feet at the Hope gage. Inflows are 1.5 kcfs and outflows are 17 kcfs.

Dworshak is at elevation 1,518 feet, with inflows up to 2 kcfs over the past few days. Outflows are still at minimum of 1.6 kcfs.

Inflows at Lower Granite are around 17 kcfs; at McNary, 80-90 kcfs; at Bonneville, 90-100 kcfs. Wagner asked why spill kicked up to 23 kcfs at Lower Monumental if it's 17 kcfs at Lower Granite.

A maintenance operation at Lower Monumental from Oct. 25-Nov. 11 in which 5.5 kcfs has been passing through generator unit 5 (speed-no-load) and spilling the rest. For most of this time, the spill has been around 6.2 kcfs, but spill peaked at 23 kcfs yesterday evening, Nov. 4. At 6.2 kcfs spill, TDG levels were 109-11 %, but at 23 kcfs spill, TDG levels rose to 113.5%.

In order to minimize the risk of spill while construction barges are in The Dalles spillway, the COE recently issued a spill priority list with The Dalles at the very bottom. The COE will modify spill amounts for 110% and 115% TDG to zeros, which will give the contractor the biggest possible margin of safety in terms of having to spill at The Dalles.

Grand Coulee is at elevation 1,288.8 feet, John Roache (BOR) reported. Hungry Horse is at 3,528.4 feet, discharging 2.5 kcfs. On Nov. 3 at 2:57 pm during maintenance testing, the generating plant went down for around 2 hours. Flow was maintained in the river by releasing 2,300-2,400 cfs through the hollow jet valve which increased TDG in the river. For about an hour TDG levels reached 109.91% but dropped back to 98-99% as soon as the generating units came back on. Minimum discharge from the project dropped to as low as 550 cfs on Nov. 3. As a result, Columbia Falls flow dropped below the 3,500 cfs minimum for about 4 hours to a low flow of 3140 cfs. When the plant went down BOR contacted Brian Marotz of Montana Fish Wildlife & Parks. Brian was more concerned about maintaining flow in the river than brief periods of increased



TDG. The BOR is still investigating the causes of the forced outage. Another outage is being planned by Grand Coulee now, Scott Bettin (BPA) said. He and Roache will coordinate on that.

**b. Fish.** This is the last report of the year on juvenile passage, Paul Wagner said. Monitoring ended at Lower Granite and Little Goose on Oct. 23, when a few hundred fish were passing per day. What happens after this point is unknown. Full flow PIT tag data are being collected at John Day, Dennis Schwartz (COE) said. Fish passing at this time of year have adult return rates of 50-100% which is incredibly high. Adult passage is tapering off as well. Snake River projects have gone to video monitoring. This year's passage count of 16,443 adult fall Chinook at Lower Granite set a record, while counts of 166,000 hatchery steelhead and 41,000 wild steelhead also indicate this is a good year. Passage numbers for hatchery steelhead were high and early this year in comparison to 10-year averages, but no comparable 10-year average has been calculated for wild steelhead. The TMT year-end review will include an overview of fish runs at all projects.

**c. Power System.** There was nothing to report today.

**d. Water Quality.** There was nothing to report with the exception of Lower Monumental operations (see above under "Reservoirs"). A TDG and temperature modeling annual conference is scheduled for 1-5 pm, Nov. 20 at the Portland USGS office.

## **9. Next Meeting**

The next regularly scheduled TMT meeting will be at 1 pm, Nov. 19, 2008. Options for meeting the chum spawning and spill wall construction operational needs, an Albeni Falls update including definition of the end of kokanee spawning, the draft Water Management Plan, and the standard operations review will be on that agenda. The agenda for the TMT annual review will be finalized and sent to TMT early next week. This summary prepared by consultant and writer Pat Vivian.

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